repeated to avoid confusion of act "(d)" in dependent claim 50 where claim 48 only includes (a) and (b). The chains of dependences (49 to 48 and 50 to 48) should be considered independent of each other, so "(c)" in both does not result in confusion. Applicant respectfully requests reconsideration of the objection of claim 50.

Claims 52 and 54 were rejected pursuant to 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully request reconsideration of this rejection. The subject matter "the second end of the suture passes through at least one of the coils before being gripped by the gripping element" is clearly described in the specification at page 10, lines 15-22 as a possible variation. In the specification it is stated that the gripping element may be placed behind the coils when the coils are wrapped around a one-legged tube in the direction of movement of the needle tip as it approaches the tube. It is further stated that in this embodiment the second end of the suture is passed through the tube, therefore through the coils, by the needle. A person of ordinary skill in the art would understand that the needle is in its fully extended position at the time it delivers the second end of the suture to the gripping element, and that bringing the coils in front of the gripping element makes the described arrangement where the gripping element's placement is behind the coils without carrying the gripping element out of reach of the needle in its fully extended position. The specification discloses the second end of the suture passing through a coil before the second end of the suture is gripped by the gripping element.

Claim 59 was rejected pursuant to 35 U.S.C. §112, second paragraph, as being indefinite due to the term "between." Claim 59 has been amended and is definite.

Claims 51, 53, 55, 56, 67 and 68 were rejected pursuant to 35 U.S.C. §102(b) as being anticipated by Phan (U.S. Patent No. 5,234,443). Applicant respectfully requests reconsideration of this rejection, including independent claims 51 and 53.

The method disclosed by Phan does not include providing a suturing device where a suture delivery system includes a suture wrapped in a set of coils as required in

claim 51 or having a partially tied knot as required in claim 53 and then performing the further acts. In Phan, the coils and loops are created by the user with the help of the device during the suturing process [Column 7, line 64-Column 8, line2; Column 8 lines 65-67; Column 10 lines 21, 22 and lines 63-65; and Column 12, lines 19, 20].

Futher, Phan does not disclose a needle guide and a needle slideably mounted in the needle guide as required in claims 51 and 53. The grasper (60) described by Phan [Column 7, lines 24-30] is a needle holder, grip or mount, not a needle guide. For Phan, the person who handles the needle holder steers or controls the needle. The grasper structure 60 relied on by the Examiner does not guide the needle, so is not a needle guide. This distinction is further highlighted by the claimed limitation of "a needle slideably mounted in the needle guide." Phan discloses securing the needle or suture with the grasper 60 [Column 7, line 67-Column 8, line 2]. Phan secures the needle when grasped with the grasper. The grasper 60 is then used by the user to maneuver the needle while securely grasped. A secure grasp is not a slideable mount. The Examiner notes that "when the needle is mounted in the flat jaws, the needle will inevitably be slideable." However, the needle as claimed must be slideably mounted in the needle guide. Grasping by Phan does not allow sliding in the guide, so is not a needle slideably mounted in a needle guide.

Dependent claims 55, 56, 67 and 68 depend from claims 51 and 53, so are allowable for the same reasons. Further limitations of these dependent claims are not disclosed by Phan. For example, Phan's suture delivery system does not comprise a suture wrapped around a tube prior to performing the passing, gripping and moving acts as claimed in claim 55 and 56. In Phan, the user makes those wraps around a tube (20) during the suturing process [Column 7, line 64-Column 8, line2; Column 8 lines 65-67; Column 10 lines 21, 22 and lines 63-65; and Column 12, lines 19, 20]. Claims 55 and 56 does not express a deed but the state of the suture and the tube prior to the acts. There is a tube and a suture wrapped around the tube at the beginning of the suturing process, not that the user wraps the suture around the tube during the suturing process as in Phan.

As another example, Phan does not disclose cutting the suture on both sides of the knot with the suturing device as claimed in claim 67. The device disclosed by Phan cannot cut.

As yet another example, Phan does not provide a suture delivery system having a plurality of sutures as claimed in claim 68. The device disclosed by Phan does not comprise a suture itself [Column 11 line 22-Column 12 line 12].

Claims 48-50, 60, 61, 65, 66 and 69-72 were rejected pursuant to 35 U.S.C. §102(e) as being anticipated by Yoon (U.S. Patent No. 6,086,601). Applicant respectfully requests reconsideration of this rejection, including independent claims 48, 69 and 71.

Independent claim 48 requires automatically passing a portion of the suture through tissues to be held together with the needle; and then automatically forming a knot in the suture in response to a trigger event. The method disclosed by Yoon involves several user manipulations other than triggering the handle, such as pulling and pivoting the device by the user [Colum 9, Lines 35-59], in order to apply and tie a suture. Yoon may automate passing the needle and a part of the suture through a tissue, but does not suggest automatically forming a knot in the suture. The device disclosed by Yoon is not capable of automatically forming a knot in a suture.

he has overcome Yoon

Dependent claims 49 and 50 depend from claim 48 so are allowable for the same reasons.

Independent claims 69 and 71 require a suturing device where passing a portion of a suture through tissues with a needle, forming at least a first loop in the suture, and tightening the first loop are in response to a first triggering event. However, in Yoon's method, the described device can only pass the needle and a portion of the suture through two tissues to be held together with only one triggering event at the handle. In order to complete the remainder of the functions, additional triggerings and other manipulations are provided in Yoon's method. The Examiner alleges that the handles (62, 64) move the end effectors (40, 50) to perform all of the functions in Yoon's

method. However, Yoon describes other maneuvers, such as pulling the instrument, pivoting the barrel of the instrument and handling the suture, other than actuating the handles to accomplish some of the functions [Column 9 lines 35-38, 43-46, and 56-61]. Yoon does not suggest a suturing device where passing a needle and a portion of a suture through tissues, forming at least a first loop in the suture, and tightening the first loop are performed in response to a first triggering event.

Dependent claims 60, 61, 65 and 66 depend eventually from independent claims 51-54. These claims were rejected over Yoon. However, independent claims 51 and 53 were rejected based on Phan, not Yoon. The Examiner did not provide any motivation to use teachings from both references. Claims 52 and 54 were not rejected based on prior art. Accordingly, the rejections of claims 60, 61, 65 and 66 should be withdrawn. These dependent claims are also allowable for the same reasons as the independent claims from which the dependent claims depend.

Further reasons demonstrate that dependent claims 65 and 66 are patentable. Dependent claims 65 and 66 require automatically initiating the pulling of dependent claims 60 and 61 when tension reaches a threshold. In the Office Action, the Examiner notes that "each time Yoon makes another "hitch" (a.k.a. loop) in the knot, the first hitch (loop) will be tightened because the loop above it, while it is being tightened, will push down and tighten the second loop. When the top "first loop" is tightened a certain amount - to a treshold tension - the first loop will be tight enough to automatically push down on the bottom "second loop" and further tighten it." However, as described in Yoon's patent, the user first tightens the loop that circles the tissue (first loop) grasping the proximal portions of suture material S and drawing it into suture material channel [Column 9 lines 56-61], and then forms another loop (second loop). After forming the second loop, the user repeats the act in the same manner to tighten the second loop [Column 9, line 64]. Yoon does not suggest automatically initiating pulling.

Dependent claims 70 and 72 depend from claims 69 and 71, so are allowable for the same reasons.

CONCLUSION

Applicant respectfully submits that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

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